



US010258532B2

(12) **United States Patent**
Killian

(10) **Patent No.:** **US 10,258,532 B2**
(45) **Date of Patent:** **Apr. 16, 2019**

- (54) **PORTABLE URINAL MOUNTING ASSEMBLY**
- (71) Applicant: **James M. Killian**, Houston, TX (US)
- (72) Inventor: **James M. Killian**, Houston, TX (US)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 6 days.

4,270,231 A	6/1981	Zint	
4,606,736 A *	8/1986	Van De Weghe	A61F 5/44 604/322
4,901,375 A *	2/1990	Dahlgren	A61F 5/44 224/148.2
4,974,760 A	12/1990	Miller	
5,288,001 A	2/1994	Locarno	
5,722,096 A	3/1998	Pfaeffle	
5,743,650 A *	4/1998	Shannon	A61G 5/10 224/407
6,065,726 A	5/2000	Pfaeffle	
6,116,551 A	9/2000	Pfaeffle	

(Continued)

- (21) Appl. No.: **15/297,206**
- (22) Filed: **Oct. 19, 2016**

- (65) **Prior Publication Data**
US 2018/0104131 A1 Apr. 19, 2018

- (51) **Int. Cl.**
A61G 9/00 (2006.01)
A47K 11/12 (2006.01)
A61H 3/00 (2006.01)
- (52) **U.S. Cl.**
CPC *A61H 3/00* (2013.01); *A47K 11/12* (2013.01); *A61G 9/006* (2013.01); *A61H 2003/002* (2013.01)

- (58) **Field of Classification Search**
CPC A47K 11/12; A61G 9/006; A61G 5/1002; A61G 5/1094; A61G 5/10; A61G 5/102; A61J 9/06; A61J 9/063
USPC 135/67; 224/148.6, 407, 409, 926; 248/102, 104, 318, 693, 769; 4/144.1–144.4, 454, 457, 484, 661; 604/322–326, 346, 347; D3/229
See application file for complete search history.

- (56) **References Cited**
U.S. PATENT DOCUMENTS
2,399,320 A * 4/1946 Brose A61J 9/0638
248/102
3,473,772 A * 10/1969 Nilson A61G 7/0503
248/214

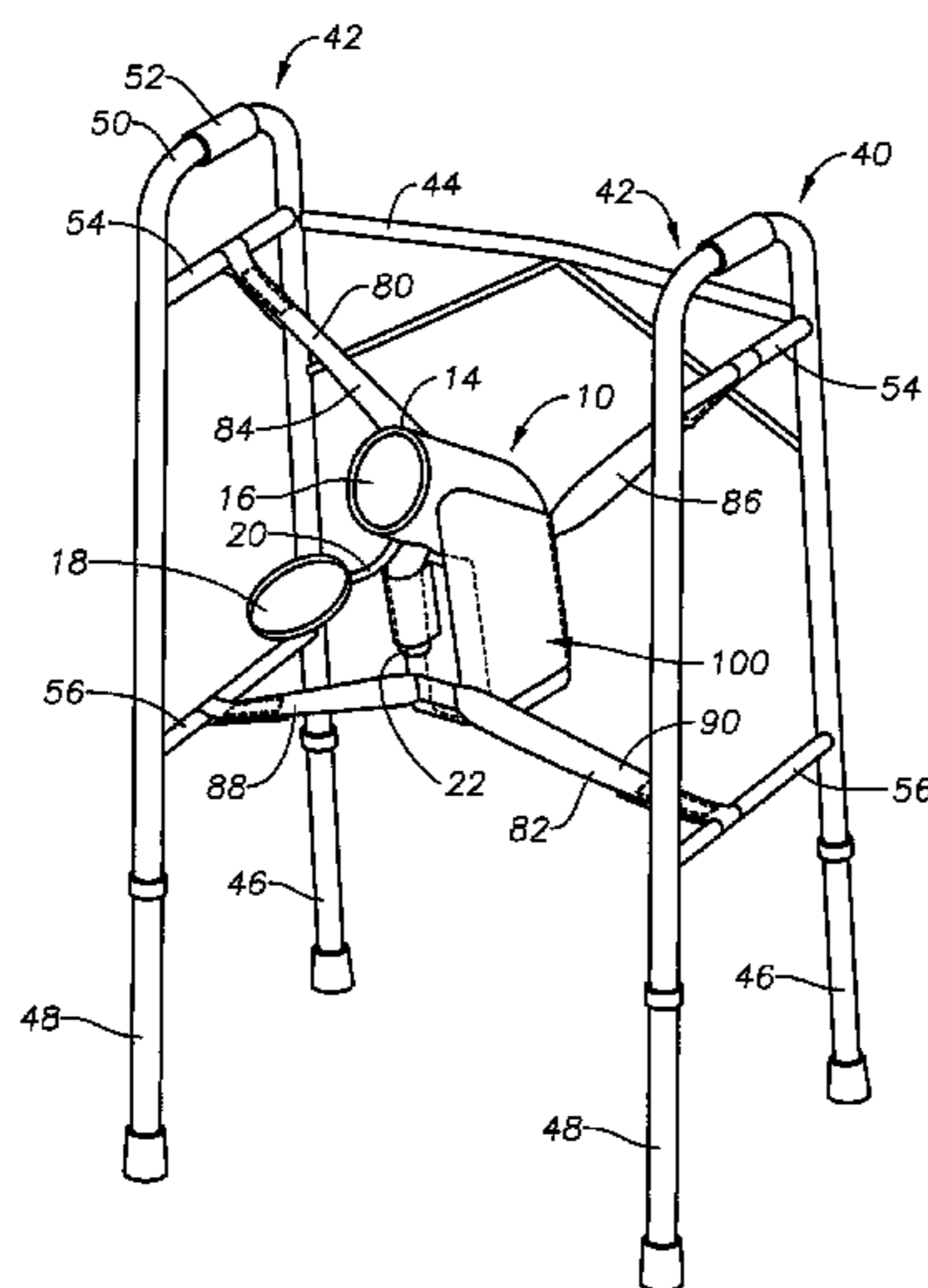
OTHER PUBLICATIONS

Excerpt from http://www.seniorsstore.ca/Mobility-Walkers/c14_68/index.html, retrieved Jul. 22, 2016.
(Continued)

Primary Examiner — Paul R Durand
Assistant Examiner — Nicholas A Ros
(74) *Attorney, Agent, or Firm* — Bracewell LLP; Douglas W. Rommelmann

(57) **ABSTRACT**
A portable urinal mounting assembly selectively connectable to a walker having a pair of side support assemblies including upper and lower support braces. The mounting assembly comprises a body sleeve adapted to receive a portable urinal. Front left and right straps and rear left and right straps are attached to the body sleeve. Each of the front and rear left and right straps have an end portion including an attachment device. The end portions of the straps are arranged and designed to be removably secured to the upper and lower support braces of the pair of side support assemblies.

27 Claims, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

6,406,463 B1 * 6/2002 Brown A61G 9/006
4/144.1
7,510,157 B2 * 3/2009 Oliver A45C 13/28
220/739
D601,794 S * 10/2009 Jarvio D3/229
8,122,527 B2 * 2/2012 Ruttler A47K 11/04
297/182
2012/0097720 A1 * 4/2012 Lee A47G 25/12
224/407
2013/0256357 A1 10/2013 Prosperie

OTHER PUBLICATIONS

International Search Report and Written Opinion dated Dec. 26,
2017 for corresponding PCT/US2017/055790.

* cited by examiner

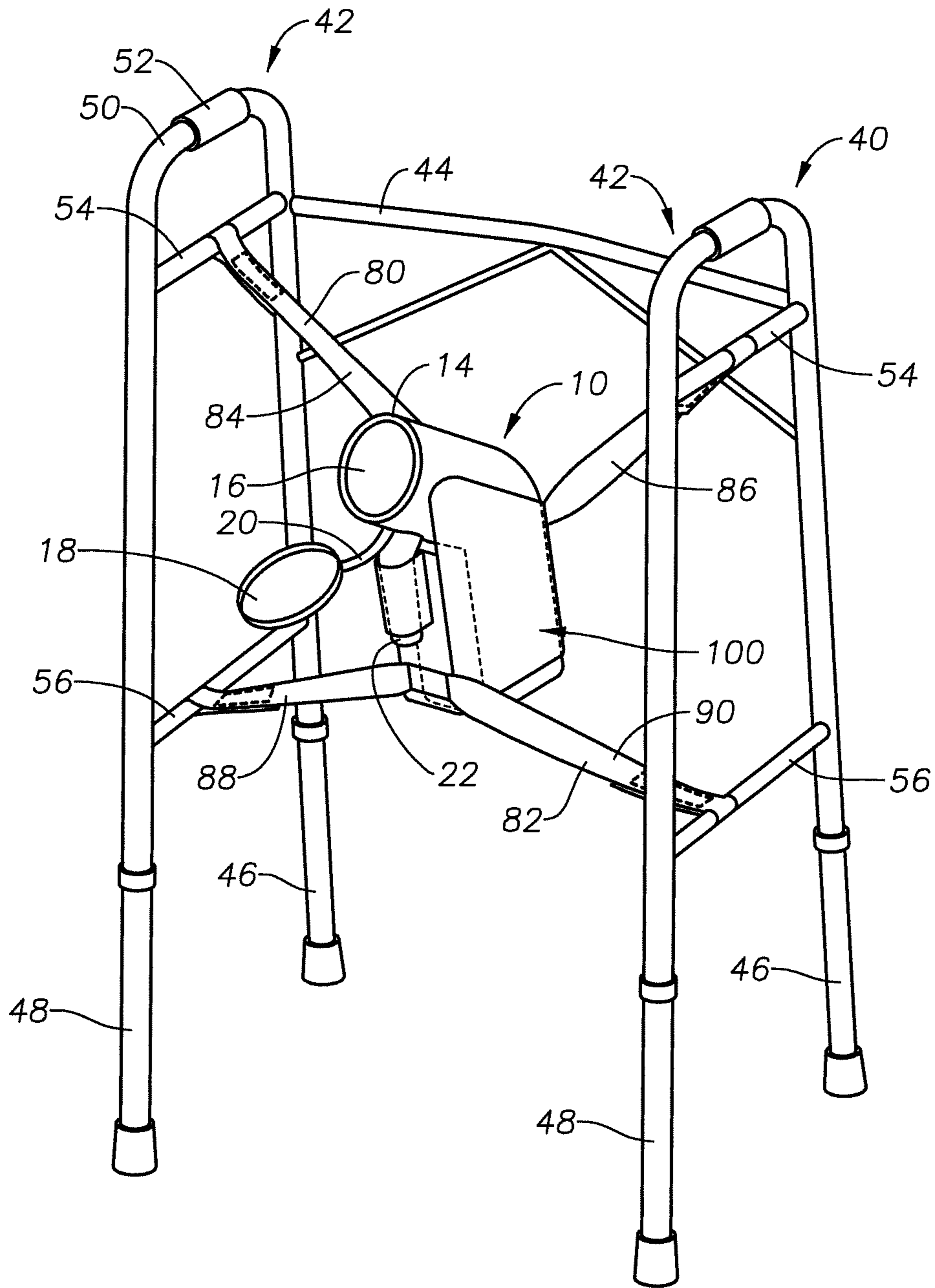


FIG. 1

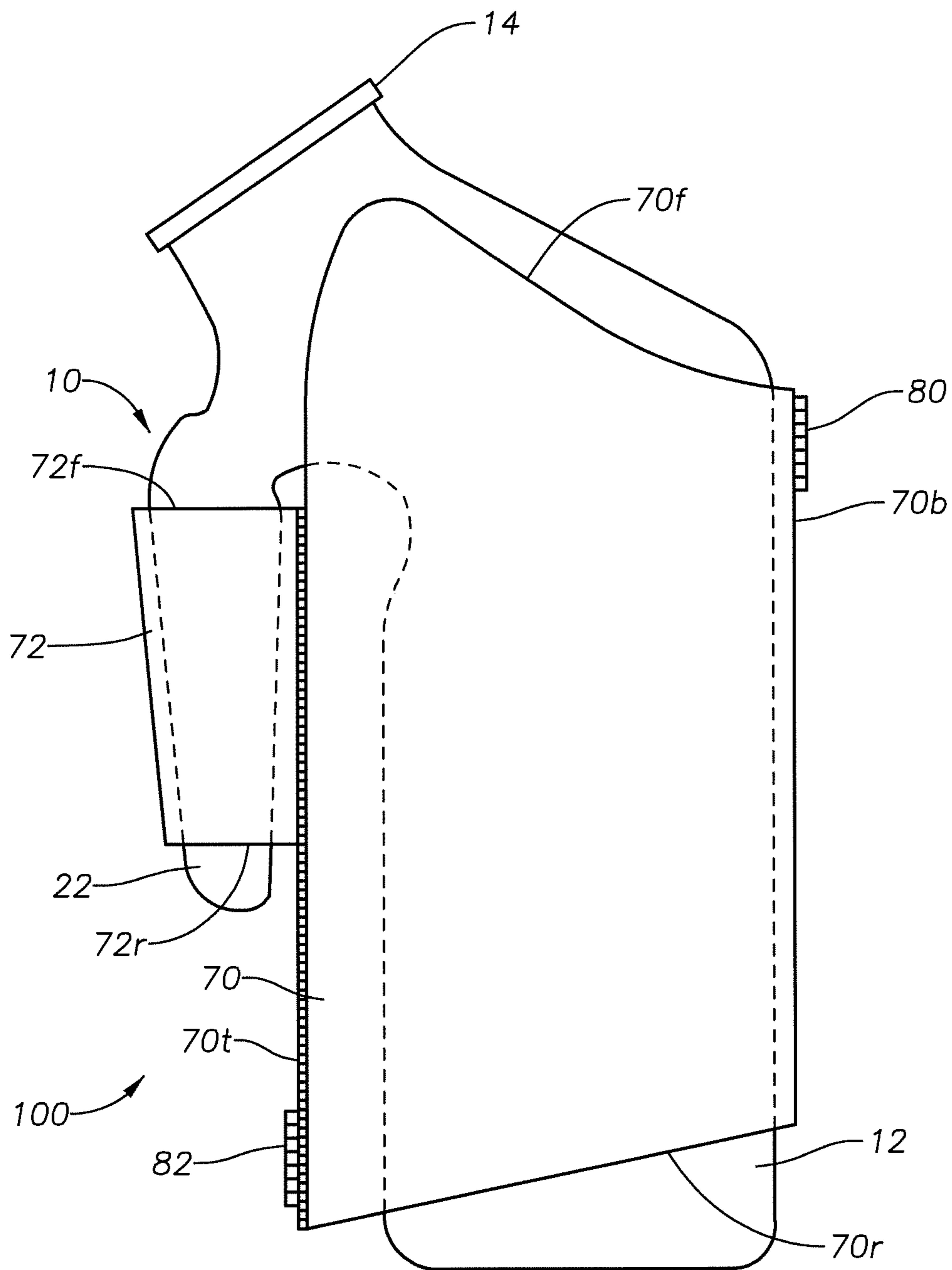


FIG. 2

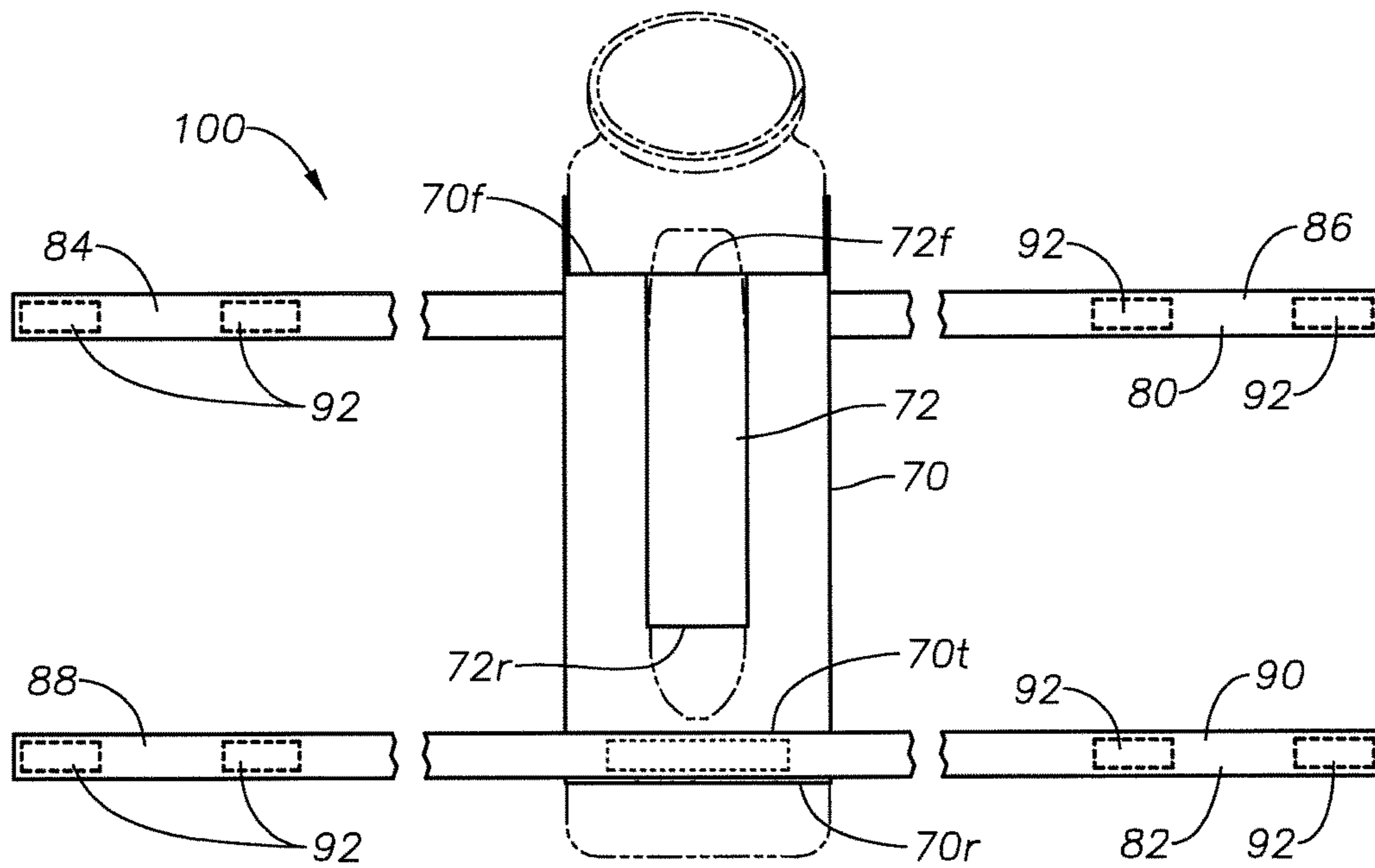


FIG. 3

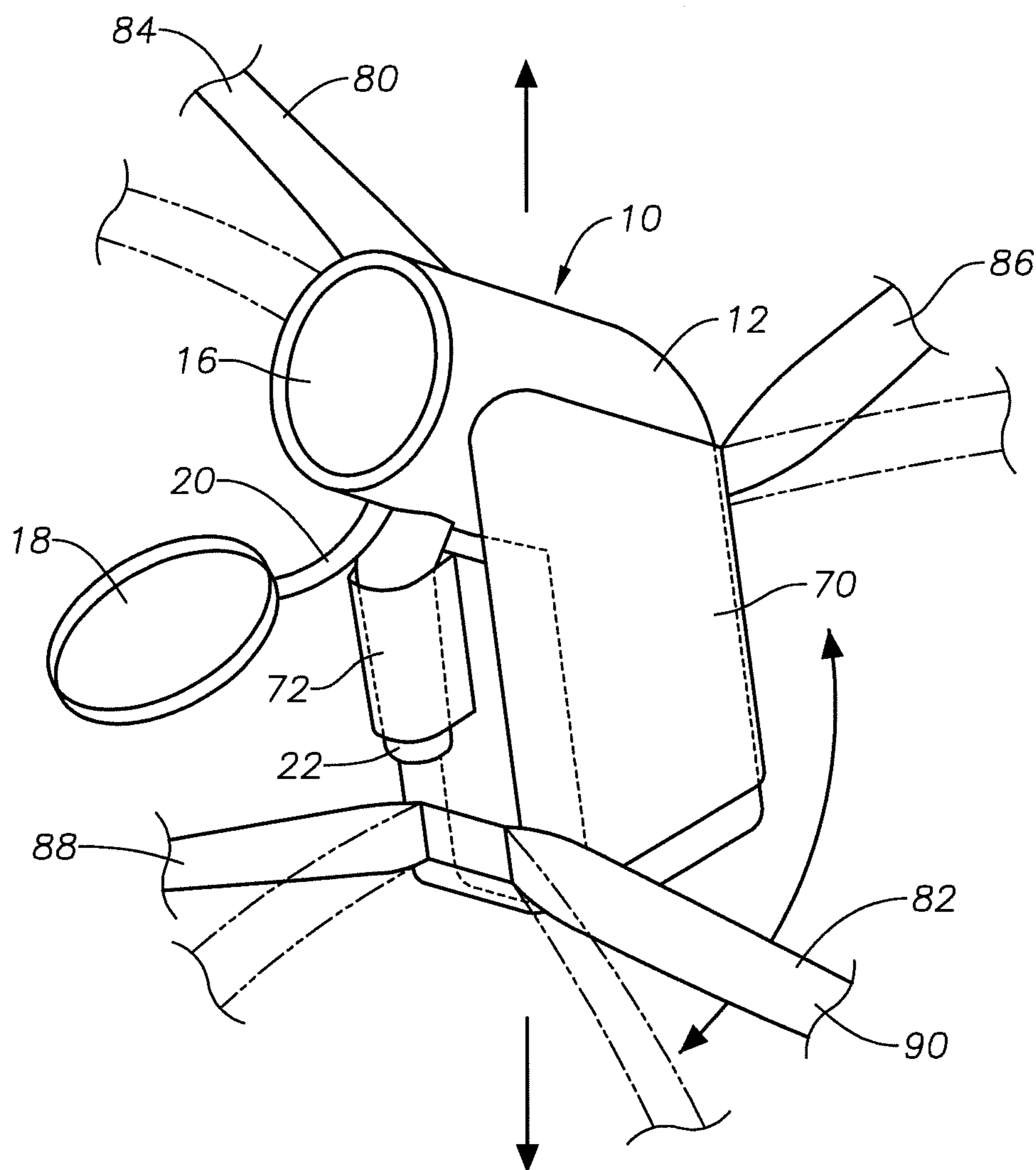


FIG. 4

1

**PORTABLE URINAL MOUNTING
ASSEMBLY****BACKGROUND OF THE INVENTION**

1. Field of the Invention

This invention relates generally to portable urinals and more particularly to portable urinals for attachment to a walking assistance device, such as a standard walker.

2. Description of the Related Art

Personal mobility is limited for many individuals, particularly as we grow old and become weak. For many such individuals the ability to walk or even just to stand requires assistance from a caregiver or the use of a walking device, typically referred to as a walker in the healthcare field.

It is common in the healthcare field to employ portable in-bed or stand-up handheld urinals for male bed-ridden patients. Urinal bottles have been used for many years to allow a bed-ridden individual to urinate while lying in the prone or side position. However, the bladder cannot be completely emptied when lying in the bed and, as a result, the individual may have to urinate more frequently.

Typical portable stand-up handheld urinal devices fail to provide support for the individual using the device. These devices are typically used by disabled or bed-ridden individuals who need assistance to stand.

U.S. Pat. No. 6,065,726 discloses a portable urinal holder connectable to a walker which can be used while standing. The holder includes an elongated adaptor having a plurality of rods extending such that a receiving area of one end of a telescoping support may be coupled to the adaptor at any of multiple locations on the adaptor. The adaptor also includes a pair of members for connecting to the walker. A second end of the telescoping support includes a bottle receiving area for coupling to the urine bottle. The telescoping support includes an outer hollow rod slidable on an inner rod and a stop screw to lock the length of the telescoping support.

It would be desirable to have a portable "hands free" urinal which can be utilized in the standing position by disabled, partially disabled or bed-ridden males. It would be further desirable to have a portable urinal that can be used while the male user has support to stand. It would be further desirable to provide a portable urinal which is attachable to a standard walker that can be used while standing. It would also be desirable to provide a portable urinal that can be used while standing that is positionally adjustable. It would also be desirable to have a portable urinal that is easy to mount to a walker, lightweight, made substantially of non-rigid components, and easy to clean and sterilize.

SUMMARY OF THE INVENTION

The preferred embodiment of the present invention is a portable urinal mounting assembly selectively connectable to a walker having a pair of side support assemblies including upper and lower support braces. The mounting assembly comprises a body sleeve adapted to receive a portable urinal. Front left and right straps and rear left and right straps are attached to the body sleeve. Each of the front and rear left and right straps have an end portion including an attachment device. The end portions of the straps are arranged and designed to be removably secured to the upper and lower support braces of the pair of side support assemblies.

Upon attachment of the preferred embodiment of the portable urinal mounting assembly to the walker, a portable "hands-free" urinal is provided which can be utilized in the

2

standing position by disabled, partially disabled or bed-ridden males. The user has a hands-free portable urinal that can be used while having support to stand. Additionally, the hands-free portable urinal is positionally adjustable in height and angular orientation. The portable urinal mounting assembly is easy to mount to a walker, lightweight, made substantially of non-rigid components, and easy to clean and sterilize.

**BRIEF DESCRIPTION OF THE SEVERAL
VIEWS OF THE DRAWINGS**

The advantages and features of the invention will become more apparent by reference to the drawings which are appended hereto, wherein like reference numbers indicate like parts, and wherein an illustrative embodiment of the invention is shown, of which:

FIG. 1 is a rear, right side perspective view showing a preferred embodiment of the portable urinal mounting assembly of the present invention, with a portable urinal, mounted to a conventional walker;

FIG. 2 is a side view of the portable urinal received within the portable urinal mounting assembly;

FIG. 3 is a top view of the portable urinal mounting assembly with the portable urinal shown in broken lines; and

FIG. 4 is a partial view of the portable urinal mounting assembly with the portable urinal in an installed orientation, the broken lines showing various positions for the straps.

**DESCRIPTION OF THE PREFERRED
EMBODIMENTS**

The invention will now be described in more detail with specific reference to the figures. FIG. 1 depicts a preferred embodiment of the portable urinal mounting assembly 100, with a conventional portable urinal male urinal 10, mounted to a conventional walker 40.

Referring to FIGS. 1, 2 and 4, the urinal 10 is an elongate bottle-like container having a generally elongate main body 12 and an angled opening end 14 having an orifice 16. The orifice 16 is adapted to be closed by a removable cap or lid 18, preferably of the snap-on type as shown in FIG. 1. The cap 18 is preferably connected to the urinal 10 by a tether 20 to avoid dropping or losing the cap 18. The urinal 10 also typically includes a handle 22 formed of cantilever style. As illustrated in the figures, the handle 22 is preferably integral with the elongate main body 12.

FIG. 1 depicts a conventional walker 40 commonly used by individuals needing some assistance to walk or stand. The walker 40 includes a pair of side support assemblies 42, typically mirror images of one another, joined together by front bracing 44. Each side support assembly 42 includes front and rear legs 46 and 48, respectively, that are substantially upright but are slightly angled towards each other from the lower to upper ends of the legs 46 and 48. The upper ends of the front and rear legs 46 and 48 are joined by an upper, generally horizontal member 50 defining a gripping portion or handle 52. The walker 40 typically includes upper and lower side support braces 54 and 56, respectively, each connected to the front and rear legs 46 and 48 at different elevations.

As shown in FIGS. 2 and 3, the preferred embodiment of the portable urinal mounting assembly 100 includes a body sleeve or pocket 70 and a handle sleeve 72. The body sleeve 70 is arranged and designed to slidably receive the elongate main body 12 and the handle sleeve 72 is arranged and designed to slidably receive the handle 22 of the urinal 10.

Receipt of the handle **22** in the handle sleeve **72** substantially prevents rotational movement of the main body **12** within the body sleeve **70**. The handle sleeve **72** is positioned above the body sleeve **70** in FIG. **3**. In an alternative embodiment the handle sleeve **72** may be omitted.

In the preferred embodiment, the body sleeve **70** and handle sleeve **72** are open at both the front ends **70f** and **72f**, respectively, and the rear ends **70r** and **72r**, respectively. This is beneficial from a sanitation perspective.

The portable urinal mounting assembly **100** also includes a front strap **80** and a rear strap **82**. The front strap **80** is attached to a bottom portion **70b** near the front end **70f** of the body sleeve **70** such that the length of the front strap **80** extends transverse to the body sleeve **70**. The front strap **80** is attached at substantially its mid length to the body sleeve **70** such that approximately equal lengths of the front strap **80** extend to either side of the body sleeve **70**. As a result, the front strap **80** defines a front left strap **84** and a front right strap **86**.

The rear strap **82** is attached to a top portion **70t** near the rear end **70r** of the body sleeve **70** such that the length of the rear strap **82** extends transverse to the body sleeve **70**. The rear strap **82** is attached at substantially its mid length to the body sleeve **70** such that approximately equal lengths of the rear strap **82** extend to either side of the body sleeve **70**. As a result, the rear strap **82** defines a rear left strap **88** and a rear right strap **90**.

Each of the front left and right straps **84** and **86** and rear left and right straps **88** and **90** include attachment or fastening devices **92** at or near the free ends of the straps. In a preferred embodiment the fastening devices include mating hook and loop fasteners, such as sold under the registered trademark VELCRO®, owned by Velcro Industries B.V. It is to be understood that other types of attachment or fastening devices may be used, including, but not limited to, snaps, buttons, hooks, etc.

The body sleeve **70**, handle sleeve **72** and straps **80** and **82** are preferably made of a clear, flexible material including, but not limited to, vinyl or plastic.

Preferably, the portable urinal mounting assembly **100** is made of materials that can withstand high temperatures for sterilizing and be washed in hot water.

The installation of the portable urinal mounting assembly **100** to a conventional walker **40** will now be explained. Preferably, the elongate main body **12** of the conventional portable male urinal **10** is inserted in the open front end **70f** of the body sleeve **70** and the handle **22** is inserted in the open front end **72f** of the handle sleeve **72**. The urinal **10** is inserted as far as possible into the body sleeve **70**; typically to the point where the cantilever handle **22** abuts the upper front end **70f** of the body sleeve **70** and limits further insertion.

The portable urinal mounting assembly **100** is positioned between the pair of side support assemblies **42** of the walker **40** with the elongate body **12** of the portable urinal **10** substantially vertically oriented with the opening **16** facing towards the rear of the walker **40**. The front left and right straps **84** and **86** are looped around the left and right upper side support braces **54** and temporarily secured thereto via the fasteners **92**. The rear left and right straps **88** and **90** are looped around the left and right lower side support braces **56** and temporarily secured thereto via the fasteners **92**. Final adjustment of the strap length and positioning along the upper and lower side support braces can then be done to position the urinal **10** at the desired height and location for the user as shown in FIG. **4**.

The preferred embodiment of the present invention provides many benefits and conveniences:

The portable urinal **10** is easily removable for emptying or storage from the portable urinal mounting assembly **100** attached to the walker **40** by simply grasping the angled opening end **14** and sliding the urinal **10** out of the body and handle sleeves **70** and **72**, respectively.

The height of the urinal opening **16** is adjustable via adjustment of the lengths of the front straps **84** and **86** and the rear straps **88** and **90** as shown in FIG. **4**.

The angle of the urinal opening **16** and the urinal **10** is adjustable by sliding the position of the front straps **84** and **86** along the upper side support braces **54** and/or by sliding the position of the rear straps **88** and **90** along the lower side support braces **56**.

The portable urinal mounting assembly **100** is easily and quickly attached or mounted to a walker. Additionally, the portable urinal mounting assembly **100** is easily and quickly detached from a walker.

The portable urinal mounting assembly **100** can be easily cleaned and sterilized.

The portable urinal mounting assembly **100** can be used with different brands or models of walkers, including walkers having different sizes and spacings between side support braces **54** and **56**.

The adjustable placement of the portable urinal **10** relative to the front of the walker **40** allows the urinal **10** to be positioned such that the user may use the handle(s) **52** of the walker **40** while urinating.

While the invention has been described in detail above with reference to specific embodiments, it will be understood that modifications and alterations in the embodiments disclosed may be made by those practiced in the art without departing from the spirit and scope of the invention. All such modifications and alterations are intended to be covered.

I claim:

1. A portable urinal mounting assembly selectively connectable to a walker having a pair of side support assemblies including upper and lower support braces, the portable urinal mounting assembly comprising:

- a body sleeve adapted to receive a portable urinal;
- a handle sleeve attached to the body sleeve, the handle sleeve being open at a front end and a rear end of the handle sleeve and arranged and designed to receive a handle of the portable urinal;
- a front left strap and a front right strap attached to the body sleeve;
- a rear left strap and a rear right strap attached to the body sleeve;
- each of the front and rear left and right straps having an end portion including an attachment device, wherein the end portions of the straps are arranged and designed to be removably secured to the upper and lower support braces of the pair of side support assemblies.

2. The portable urinal mounting assembly of claim **1**, wherein the handle sleeve is attached to a top portion of the body sleeve.

3. The portable urinal mounting assembly of claim **1**, wherein the front left and right straps are attached to a bottom portion of the body sleeve and the rear left and right straps are attached to a top portion of the body sleeve.

4. The portable urinal mounting assembly of claim **1**, wherein the end portions of the front and rear straps are arranged and designed to loop around the support braces.

5. The portable urinal mounting assembly of claim **1**, wherein the vertical position of the body sleeve is adjustable

5

via the securement and placement of the end portions of the straps with respect to the upper and lower support braces.

6. The portable urinal mounting assembly of claim 1, wherein the angular orientation of the body sleeve is adjustable via the securement and placement of the end portions of the strap with respect to the upper and lower support braces.

7. The portable urinal mounting assembly of claim 1, wherein the front left and right straps are attached proximate a front end of the body sleeve and the rear left and right straps are attached proximate a rear end of the body sleeve.

8. The portable urinal mounting assembly of claim 7, wherein the front left and right straps are attached to a bottom portion of the body sleeve and the rear left and right straps are attached to a top portion of the body sleeve.

9. The portable urinal mounting assembly of claim 1, wherein the body sleeve, handle sleeve and front and rear left and right straps are made of a flexible material.

10. The portable urinal mounting assembly of claim 9, wherein the flexible material is vinyl.

11. The portable urinal mounting assembly of claim 1, wherein the body sleeve is open at a front end and a rear end.

12. The portable urinal mounting assembly of claim 11, wherein the front left and right straps are attached proximate the front end of the body sleeve and the rear left and right straps are attached proximate the rear end of the body sleeve.

13. The portable urinal mounting assembly of claim 12, wherein the front left and right straps are attached to a bottom portion of the body sleeve and the rear left and right straps are attached to a top portion of the body sleeve.

14. A portable urinal mounting assembly selectively connectable to a walker having a pair of side support assemblies including upper and lower support braces, the portable urinal mounting assembly comprising:

a urine bottle comprising an elongate main body, an angled opening end having an orifice, the urine bottle having a cantilevered handle;

a body sleeve having an open front end;

a handle sleeve securely attached to the body sleeve, the handle sleeve having an open front end and an open rear end,

wherein the elongate main body is removably positioned within the body sleeve and the handle is positioned within the handle sleeve to substantially prevent rotational movement of the elongate main body within the body sleeve; and

a plurality of straps attached to the body sleeve, each strap having an end portion including an attachment device,

6

wherein the end portions of the straps are arranged and designed to be removably secured to the upper and lower support braces of the pair of side support assemblies.

15. The portable urinal mounting assembly of claim 14, wherein the vertical position of the body sleeve is adjustable via the securement and placement of the end portions of the straps with respect to the upper and lower support braces.

16. The portable urinal mounting assembly of claim 14, wherein the angular orientation of the body sleeve is adjustable via the securement and placement of the end portions of the straps with respect to the upper and lower support braces.

17. The portable urinal mounting assembly of claim 14, wherein the body sleeve has an open rear end.

18. The portable urinal mounting assembly of claim 14, wherein the handle is substantially parallel to the elongate main body and the handle sleeve is substantially parallel to the body sleeve.

19. The portable urinal mounting assembly of claim 14, wherein the plurality of straps comprises:

a front left strap and a front right strap attached to the body sleeve; and

a rear left strap and a rear right strap attached to the body sleeve.

20. The portable urinal mounting assembly of claim 19, wherein the front left and right straps and the rear left and right straps extend transverse to the body sleeve.

21. The portable urinal mounting assembly of claim 19, wherein the front left and right straps are attached proximate the front end of the body sleeve and the rear left and right straps are attached proximate a rear end of the body sleeve.

22. The portable urinal mounting assembly of claim 19, wherein the body sleeve and front and rear left and right straps are made of a flexible material.

23. The portable urinal mounting assembly of claim 22, wherein the flexible material is vinyl.

24. The portable urinal mounting assembly of claim 19, wherein the body sleeve, handle sleeve and front and rear left and right straps are made of a flexible material.

25. The portable urinal mounting assembly of claim 24, wherein the flexible material is vinyl.

26. The portable urinal mounting assembly of claim 19, wherein the front left and right straps are attached to a bottom portion of the body sleeve and the rear left and right straps are attached to a top portion of the body sleeve.

27. The portable urinal mounting assembly of claim 26, wherein the handle sleeve is attached to the top portion of the body sleeve.

* * * * *